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Educating Parents about Gaming

Action Research in a Hungarian Elementary School

Faculty of Communication Sciences

Master's thesis in media education

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Game education is an integral part of media education the aim of which is to provide people with skills and competence to be able to function in today's society which is becoming highly mediatized and digitalized.

This study aims to discover ways of educating parents about video games so that they can become the primary media educators of their children. As action research in this study a co-playing event was implemented for parents and their children in a Hungarian elementary school. Through the collected qualitative data (interviews, research diary, feed-back discussion audio recordings) this thesis aims to answer the question: "How to support parents in educating their children about video games through reinforcing co-playing and other mediation strategies?"

This study relies on three categories that were identified in connection with television and are used for video games as well. These categories are: restrictive mediation, active mediation and co-playing. Restrictive mediation refers to time and content limitations that parents enforce on their children. Active mediation is parents talking with their children about video game contents, approving or disapproving media messages and contents or providing information about video games. Co-playing is when parents sit down to play together with their children. These mediation strategies are used by different parents with different weight. A well-balanced use of these strategies is important for the sake of effective game education.

As a conclusion a diagram was produced adding new dimensions and impacting factors to the three mediation types, complementing the theory of parents' mediation strategies. The attitude of parents about video games is confirmed to be a key factor determining their choice of mediation strategy. The implemented co-playing event seemed to influence the attitude of the parents therefore it is concluded that co-playing is an effective way of educating parents about video games.

Based on the results, it is proposed that parents should receive more support and guidance regarding their mediation and educating their children about media and specifically video games. This need should be considered in the research field, in schools and on a policy level.

Key words: game education, mediation strategies, parent education, action research, co-playing

CONTENTS

1 INTRODUCTION

The issue of video games is in the center of attention both from the public and the scientific prospect. Most of the young people regularly play video games, and for the majority of children it is a primary activity when considering spending free time (Olson et al., 2007; Brooks, Chester, Smeeton and Spencer, 2016). "In 2003 it was estimated that 430 million people worldwide, or 7% of the world's population, played video games. "(Seay, 2006, 14) It is indisputable that gaming is a relevant and timely topic of youth-work and education.

"The number of adolescents gaming for two or more hours on weekdays significantly increased in both boys and girls, from 42% to 55% and from 14% to 20%, respectively, over the four-year survey period between 2006 and 2010." (Brooks et al., 2016, 36) These numbers show a clear growth in the consumption of video games and the popularity of games as a leisure activity. These tendencies verify the timeliness of further discussion and development regarding this topic.

When games are discussed publicly or at school, it is accustomed that the focus of the discussion is on the negative effects of gaming. Up until now, the main focus of scientific discussion is on the effects of video games on youth, especially highlighting the pathological video game usage and possible negative psychological consequences and addiction. Although scientists seem to disagree with the radical view that video games are directly correlated with aggressive behaviour and addiction, the public debate continues without adequate information or comprehension (Harviainen, Meriläinen and Tossavainen, 2015).

According to Harviainen et al. (2015) game education is an integral part of media education which aim is to provide people with skills and competence to function in today's society which is becoming highly mediatized and digitalized. "Game education is a tool and method for strengthening this literacy and for promoting a positive game culture." (Harviainen et al., 2015, 12)

In gaming culture, being an integral and inevitable part of today's information society, it is vital that the members of society get support from educators navigating in this field. The question emerges: who is responsible for providing this education? Media educators teaching in schools or doing youth work in libraries have undertaken this role. However, it is not only the schools that have major influence on a child's development and growth. In fact, the most direct influence comes from within the family. Parents, however, did not receive this education growing up. Although gaming

highly affects the family life, parents expectedly do not have adequate knowledge about gaming and the digital world, therefore easily fail to provide their children with compatible advice and guidance. The gap in technological proficiency that can occur between adults and children is referred to as the digital divide (Choo, Sim, Liau, Gentile and Khoo, 2014). This study aims to discover ways of educating parents about games, so that they can become the primary media educators of their children.

As the focus of discussion of video games has not been parent education, the lack of exploration in this area is the incentive of this thesis. It is also my personal objective to contribute to a necessary positive change in educational practices at least on a local level. This action research was conducted in a Hungarian elementary school. This choice had personal and practical perspectives as well as a professional motive.

Hungary is at initial stage when considering funding of media and information literacy (later referred to as MIL) at all sectors (civic-, private- public) and predicted to remain in initial stage. Funding as well as evaluation focuses on digital, information and computer skills in Hungary. Practical skills are tested in the form of students' examination and it is a common practice to participate in the international measurements such as ECDL. These practices reflect Hungary's perception of MIL which takes practical computer and IT skills in focus compared to countries with more democratic history that tend to define Media and Information Literacy in a more composite way and involve critical thinking and social responsibility in the notion of media education. (Frau-Meigs, Velez and Michel, 2017) Hungary is in firm need for support in media education and specifically game education.

The personal motivation for conducting the study in Hungary was that I am from Hungary, the advancement of Hungarian media education is personally important to me. It was also practically easier to conduct an action research there as I have extensive connections in Hungary and I am familiar with the culture and the language.

In the beginning part of this thesis a review of the relevant academic literature is located. The most important trends, findings and theories related to the implemented action research are discussed. It consults two distinct bodies of literature. Firstly, the trends and tendencies of audience practices regarding video games. Secondly, it explores the field of game education and parental perspectives. As this study draws on the concept of mediation strategies (Nikken and Jansz, 2006), in order to understand the research and the findings, it is vital that the readers get a basic understanding of this theory. This section of the thesis provides the explanation for the need of this study. It establishes the most important terms and theories used throughout the thesis.

In the third chapter the implemented action research is discussed with details of the circumstances of the research, the method and nature of the collected data as well as the analysis of the data. This part of the thesis describes the methods of data collection and explains the decisions made in the research process. The chapter includes a table about the collected data and a coding template for the analysis. This is the focal point of the thesis because it provides the basis for the findings, makes this study transparent and establishes credibility.

In the fourth chapter the findings are summarized. The main findings are summed up in three subchapters following the three categories influencing parents' mediation strategies. The chapter in case starts with the presentation of a diagram which considers and illustrates all three points of the findings. The denoted diagram itself is the most important result of this action research (Picture 1). This chapter also describes those areas of the parent mediation theory that would require more research and adjustment.

In the final chapter of the thesis conclusions, the implications of the study and the evaluation of the research are placed. The thesis closes with the explanation of how this action research relates to the field of the study and what it adds to the already existing theories. In this chapter, more comprehensive media and game education is argued for and the areas of potential further research implied from the study are discussed. Finally, the chapter describes the limitations and the significance of this study.

2 GAME EDUCATION AND PARENTAL PERSPECTIVES

2.1 Audience Research

Audience research deals with the patterns of behavior concerning media consumption. It intends to observe media usage habits, the motivations behind those habits and it also studies the audiences' media-consumption history and changes (Hasebrink and Domeyer, 2012).

Hasebrink and Domeyer constructed the concept of media repertoires (2012). The mentioned approach observes individuals and their personal media usage. They believe that people have their own repertoires which means" meaningful composition of different media content" (Hasebrink and Domeyer, 2012, 776) A few core principals define a person's repertoire. These principals are related to individual values, ambitions and social context. It is essential to understand that a specific person uses a composition of different media and there is interrelation between the components. With this fact in mind, we can analyze audience's media usage habits, however, it is important to look at the whole scale, not only concentrate on one media type (medium, for example television or computer, or specific genre). In this paper the focus will be on video game usage. This focus, however, conveys one of the limitations of the study, as the whole media repertoire of the children was not studied due to the limited capacity of this thesis. To balance this disproportion in the following chapter a summary of usual trends of audience is presented.

2.1.1 Changing Practices of Audiences

The characteristics of audiences are constantly changing. In today's society the audience has more demand for personalization, therefore the media environment is becoming more and more fragmented. Due to this demand, the control of audience over content is constantly increasing. Portability of devices and mobile access completely changed the audience's habits and preferences. (Kortti, 2011) This transformation naturally leads to a shift in the use of media.

A clear change can be observed considering media preferences, especially among the youth. Since the appearance of television the Internet was the first medium which was able to have a considerable influence on household leisure-time use preferences (Kestnbaum, Robinson, Neustadt, and Alvarez, 2002; Gershuny 2003). A comparative study on Finnish media preferences (Näsi and Räsänen, 2013) found that the perceived importance of the Internet has significantly grown during the past ten years. The same study pinpointed, that even though the Internet has an undeniable influence on media preferences, television is still significantly present in households. Television has held its position as the favourite medium when considering share of time used for media consumption.

An even more recent report also highlights the above mentioned changes in the behaviour of audience (media preferences, more fragmented media and on-demand use, etc.). The Communications Act 2003 placed a responsibility on Ofcom to establish research on media literacy in the United Kingdom. Their reports provide information on children's (aged 5-15) media use. They created the report: *2016 Children and Parents: Media Use and Attitudes* using extensive research methods and data including analysis of children's television viewing habits sourced from BARB, the UK's television measurement panel, 2010-2015. The report confirms the tendency of children using the Internet increasing (weekly 13 hours 42 minutes changed to 15 hours for 5-15 year-olds), while traditional television-watching falling. However, content viewing is still dominant in children's lives. They tend to watch those contents through online, using for example YouTube. YouTube is a popular content destination, especially among older children. According to Ofcom, 87% of children aged 12-15 use YouTube. At their earlier age children are more likely to watch TV-programs, films and cartoons on YouTube, however, as they get older the program preference changes. Teenagers are more interested in music videos, funny-clips and vlogger channels.

Despite technological innovations, television managed to keep its position as a substantial social family media (Kortti, 2011; Ofcom, 2016), although it has become more segmented and personalized. According to Kortti's study made in Finland (2011), television has not lost its role as a collective medium. Based on student narratives, Kortti concludes that television serves as a social tool to this day. It connects people by providing common topics and common experiences. As a conclusion, it seems reasonable to say that the change in media use is not as radical as it was anticipated before. Television and Internet exist simultaneously. The change that came with new technologies is more visible in the ways media is consumed. The media environment is becoming more fragmented and more personalized. The portability of devices and mobile access allowed a more on-demand way of consuming media.

2.1.2 Generation Z- Digital Natives

Although "Generation Z" is not a uniformly accepted expression, it is the most common one used referring to the generation born after 1995. In this meaning generations are sociologically defined groups of people.

> *A generation refers to a cohort of people born within a similar span of time (15 years at the upper end) who share a comparable age and life stage and who were shaped by a particular span of time (events, trends and developments).*
>
> (McCrindle and Wolfinger, 2010, 1-2)

The members of Generation Z are the children of the Millenials. They have experienced (as children) the economic crisis of 2008. The most significant trend forming the lives of Generation Z is the every-day use of digital technology. They were born into a world where internet and smartphones were available at all times. They are true digital natives speaking the „language of technology" effortlessly.

Prensky in his article, "Digital Natives, Digital Immigrants "(2011) defines the people of Generation Z as digital natives. He states that as a result of their highly digitalized environment, they think fundamentally differently from their ancestors, who are referred to as digital immigrants. Compared to the previous generations he describes digital natives this way: they have shorter attention spans, they crave interactivity, they are used to receiving information fast and process it in a different way (parallel processing and multi-tasking). They need frequent gratification. He refers to the ancestors of this generation as digital immigrants who can try to speak the langue and adapt to the environment, but will never be able to be as fluent as those who were born into this culture.

According to his theory, digital immigrants will always have accents. They will never fully understand or agree with the thinking and functioning of digital natives. He concludes that this generational gap is the cause for problems in school. Teachers, who are digital immigrants, use the same techniques for teaching that have proved to be efficient before, but they no longer work. He argues for revolutionizing education in a way that adapts to this generation's needs. One suggested way of this is using digital games in teaching and learning. However, teachers are not the only immigrants that have responsibility in the children's education. Parents are the most direct influence in a child's life especially regarding free time, when media is most often consumed. This was one of the motivations for this research paper. The children in the examined case were digital natives, the parents were immigrants and in need of help regarding digital education, specifically game education

2.2 Video Game Usage among Youngsters

The issue of video games is in the center of attention both from the public and scientific prospect. Most of the young people regularly play video games, and for the majority of children it is a primary activity when considering spending free time (Olson et al. 2007; Brooks et al., 2016).

> *The number of adolescents gaming for two or more hours on weekdays significantly increased in both boys and girls, from 42% to 55% and from 14% to 20%, respectively, over the four-year survey period between 2006 and 2010.*
>
> (Brooks et al., 2016, p. 36)

Firstly, these numbers show a clear growth in the consumption of video games and the popularity of games as a leisure activity. These tendencies verify the timeliness of further discussion and development regarding this topic. Secondly, based on this data it is evident that there is significant gender difference in gameplay. Boys spend more hours gaming than girls and more boys report gaming as a main leisure activity. Consequently, the gaming reality and culture is dominated by boys. However, in recent years, gameplay among girls began to rise resulting in reduction of the existing gender gap in the sphere of video games (Brooks et al., 2016, Homer, Hayward, Frye, and Plass, 2012).

Games and playing is a substantial and important part of children's lives. It is a well-accepted fact that playing develops essential social and functional skills. This was natural in previous decades and centuries and continues to be true today. However, the form of play and game constantly changes as society continues its transformation. With the digitalization of society, regular games steadily alter into digital ones (Harviainen et al., 2015). Digital game culture is a continuum of all other forms of play or games that are present when a child or a young person grows into an individual, a member of a peer group and a member of society. (Harviainen et al., 2015, 10) It is a relatively new form of game, but rapidly gaining vaster part in one's childhood and life. Depending on the genre it might be very similar or very different from regular games. Some video games are the "digital versions" of board games. They use the same game mechanics and strategies. Some games use the digital possibilities to such a high extent that it would be very difficult to create a non-digital version. There is one trait, however, which separates every video game from regular games and play, and it is the interactive nature of it. Video games are designed for players to actively engage with their systems and for these systems to react to players' agentive behaviors in turn. (Granic, Lobel, and Engels 2014, 67)

When considering gaming in connection with family life, it is an important fact that in most families the gaming device (PC or laptop) is placed in the child's room. Therefore most children

play video games separately, isolated from family life (Nikken and Jansz, 2006). As it is mentioned earlier, there has been an immense increase in video game use in the last decade. The increase in popularity is linked to a societal change. It is very common that people's social life happens partly or even primarily through computers. Multiplayer games also boost this trend allowing social interaction and shared experience between people, having different ages, nationalities and social status, who might never meet or interact in any other ways otherwise.

The increase is partly due to the technological advancement which provide wider availability and more versatile use. The new generation, known as Generation Z or Digital Natives (born in the last two decades also known as iGeneration), was born into using the Internet and all kinds of digital devices as a part of their everyday lives. It is possible to access games at all times and of no cost. Mobile devices made gaming possible in a whole new capacity. As a result of technological advancements, broad availability, and growing demand on the market, gaming became more diversified than ever, accommodating all tastes and ages.

2.2.1 Gender Differences and Genres of Games

The gender difference in gameplay might originate in a more general technological gender gap. Women are usually less confident in their computer skills than men are. Fewer women choose to study computer science at college and in computer related jobs women are underrepresented (Desai, Krishnan-Sarin, Cavallo and Potenza, 2010). It is not a surprise that according to the International Game Developers Association (IGDA, 2005 October) 88, 5% of game developers were males. It is evident that there is a significant gender gap in the career choices related to technology and computer science. This tendency might be correlated to the gender gap in gameplay. Nowadays however, the gender gap seems to lessen. According to Statista.com in 2015 only 75% of game developers were men.

Another noteworthy finding in relation with video games and gender is the representation of different genders through game characters. Williams, Martin, Consalvo, and Ivory (2009) examined 133 different games and their gender distribution of game characters. Most of the game characters were male, especially if only primary game characters (heroes) are considered (90% male 10% female). It seems, that in this way, men are overrepresented, which brings up the question of discrimination and distorted world of games.

The same tendency is true for gameplay. The Entertainment Software Association (ESA) yearly produces reliable statistics on video game player demographics. According to this data the ratio of men and women game players in 2006 was 62% and 38%, in 2011 it was 58% and 42% and

in 2013 55% and 45%. As the data shows, the gender ratio is gradually becoming more balanced. Even though men and women both in almost the same measure seem to play some sort of digital games, their habits vary in many ways. The stereotypical male player is younger on average 35 years old and the average female game player is 43 years old (ESA report 2015). A male gamer plays for longer periods of time. They prefer competitive games while women prefer logic, puzzle, and skill training types of games (Romrell, 2014). Those preferences are obvious when examining specific genres of games. For example, MMORPGs (Massively Multiplayer Online Role-playing Games) are played mainly by men. (Yee, 2006)

It is very difficult to talk about genres of video games for a well-accepted, systematic classification does not exist. Nevertheless, it is important to address the topic of genre. It is crucial to recognize that just as different genres of films can have different effects, it is even more so regarding video games. Therefore, it is important to distinguish genres because different genres of games attract different people and promote different skills and behaviour.

Games are classified based on various aspects. It is possible to play games on many different digital platforms. Considering the platforms of use there are different genres such as console games, arcade games (coin-operated entertainment machines), mobile games, personal computer games, etc. Although the platform itself will not determine the game mechanics and narrative, the platform often shapes the experience and the social relations while playing (Apperley, 2006).Even though game genres based on platforms are easy to classify the most common classification is not based on this quality. The gaming community accepts genres based on common challenges and themes of content in the games, thus creating categories such as strategy-, action- and adventure-games (Apperley, 2006).

When talking about video game genres it is important to call attention to serious games and gamification as a new and expanding bases of video games. These methods allow games to be a part of everyday life such as: learning and education and even health and therapeutic use. (Granic, Lobel, and Engels, 2014)

2.2.2 The Phenomenon of Gamification

The term originates from the digital media industry and it only became wide-spread in 2010. Deterding, Dixon, Khaled and Nacke define it as “the use of game design elements in non-game contexts” (2011, 1.) The idea is that games entertain, increase motivation and engagement. Gamification wishes to transfer the positive aspects of games to non-game, more boring but necessary contexts by using game design elements. (Deterding et al., 2011). Those elements include

points, levels, leader boards, challenges, badges, immediate feedback, peer inter-action and collaboration, replay, unlockable content, customization, storyline, visual elements, goals, and scoreboard. (Kim, 2015)

Game-based learning and serious games are related concepts. The difference between serious games and gamified programs is the following: whereas gamification only uses game design elements serious games are full-fledged games that fulfil the conditions for being a game (Deterding et al., 2011). As Susi, Johannesson, and Backlund (2007) define it "serious games are (digital) games used for purposes other than mere entertainment" (page 1).Gamification and serious games can be and are applied to many fields, including government, education, corporate sector and healthcare (Susi, Johannesson and Backlund, 2007; Hamari, Koivisto and Sarsa, 2014).

Although gamification has been present for a long time it has been studied systematically for only a few years. It is a trending topic in research. The academic literature in the area has grown considerably between 2011 and 2014 (Hamari et al., 2014). Educational use of gamification and the research on that theme overwhelm the research of gamification. At the same time the concept of gamification has gained popularity in the fields of interaction design and digital marketing making use of the increased user activity and retention rate that can be achieved through it.

The existing studies about gamification point out that learning outcomes of gamification are positive. They reported increased motivation and engagement in the learning tasks. Simultaneously, on the contrary, negative outcomes exist as well, such as increased competition and task evaluation difficulties. (Hamari et al., 2014). As the benefits seem to surpass the negative aspects, applying gamification and serious games in the classroom seems to be a constructive and innovative practice. Introducing gamification to parents might ultimately help them to understand gaming culture and the various effects (good just as bad) of games.

2.2.3 Effects of Games

Games are a very popular topic in public discussion. From the time they appeared, psychologists and experts of other scientific areas tried to identify the effects of games. There are possible negative and positive effects of games depending on the way they are consumed (time spent, appropriate use, game content and motives). It is very difficult to generally talk about the effects of games as there are large differences between games, and specific games have peculiar effects by their nature. For example, if we take a multiplayer game and contrast it to a single player one it is easy to see that the multiplayer game can easily boost social skills, whereas the single player game cannot do the same by its nature. Similarly, different genres of games promote different types of behavior and skills that

have various effects. Therefore, when talking about positive or negative effects, it is important to note what type of games are significant to those effects. (Ferguson and Olson, 2013)

The research already done on the negative effects of video games is more extended, however, in recent years, as to balance and discover the whole scope of complexity of video games' effects, a significant body of literature and scientific research has been established on the positive effects as well. As different ways of uses of video games arise on different platforms, the positive effects are also coming to surface. In the article "The Benefits of Playing Video Games" Granic, Lobel and Engels (2014) summarize the positive effects of video games based on the existing body of literature on the topic. For a systematic review they distinguish four types of effects: cognitive, motivational, emotional and social.

In order to showcase the different possible positive effects I will mention a few benefits of gaming here using the same four categories. However, for further exploration it is advisable to read the summary of these benefits by Granic et al. alongside with some of the studies they refer to. (Green and Bavelier, 2012; Ventura, Shute and Zhao, 2013; McGonigal, 2011).

A notable finding is that the shooter games have the strongest positive effect on cognitive skills. Those skills include the ability to divide the attention efficiently and discern relevant and irrelevant information in a very short time. That positive effect can be caused by the fast-paced and visually rich game environment and unpredictable changes within the game (Granic et al., 2014). It is intriguing that shooter games, that are most commonly regarded as only bad and harmful, are the ones that boost those cognitive skills the most. Games have the power to teach children behavior patterns. They are designed in a way that the players will inevitably experience failure, disappointment, but success as a result of perseverance as well. That experience gives opportunities to children to learn how to handle their disappointments (emotional-adaptive benefit) and also conditions them to stay motivated in spite of difficulties or failure (motivational benefit-Ventura, Shute and Zhao, 2013). Adventure (role-play) games allow gamers to experience different emotions, like fear, anger or grief, in a safe environment. These kinds of games can teach them how to handle different emotions as well as teach empathy. (Harviainen et al., 2015, 35) Players learn important prosocial skills through gaming, especially if they play games that are focused on effective cooperation. In multiplayer games the players must use their communication skills, learn social norms, work in a team and take on responsibilities for a common goal.

Possible negative effects related to video games can be: negative health effects (posture, sleeping and eating habits) and bad time-management, in addition, psychologists often discuss the matters of addiction and aggressive behavior which have been the most highlighted points. The negative health effects most commonly do not have a direct connection to the content of the games,

rather on a general level, they are related to sitting in front of the computer for a long period of time and being immersed in an activity at the expense of sleep or well-balanced eating and exercising. The following health problems can emerge caused by the above described behavior: headache, back and shoulder problems, too much consumption of fast food or one-sided nutrition (only eating something quick while gaming) that can lead to obesity. Furthermore, this behavior can disturb the normal rhythm of daily routine and lead to lack of sleep. Most of the mentioned problems can easily be prevented by simple steps, for instance, regularly taking breaks while gaming, and planning of gaming sessions in harmony with daily routine. (Harviainen et al., 2015)

Game addiction exists, however, it is not as common as it is publicly perceived. It is not based on the time spent gaming, rather, gaming can be considered problematic when it has an altering effect on the gamer's life causing relationship problems, if it affects studies, health or finances, moreover, if changing gaming habits is not in the gamers control anymore. Many studies have been made trying to find the causes of game addiction (Lemmens, Valkenburg and Peter, 2011; Hussain and Griffiths, 2009; Ng and Wiemer-Hastings, 2005). The addictive features of games include high visuality, challenge, relatable and likeable characters and social community. However, those features alone cannot be the cause of addiction. There is usually an outside situation and the individual's personality traits that increase risk. Risk factors in personality are poor self-esteem, weak social skills, and mental health problems, especially depression. Game addiction does not occur purely because of the addictive nature of a game. However, there are features in games that make them appealing and might even be addictive. Studies suggest that MMORPGs (Massively Multiplayer Online Role Playing Games) are the type of games that contain the most addictive traits. They consist of elements such as social and competitive aspects. These games require devotion to the game. In a study conducted by Bria D. NG and Peter Wiemer-Hastings (Addiction to the Internet and Online Gaming, 2005) players of MMORPs reported significantly higher numbers of hours playing than offline players and also seem to find social interactions through these games more satisfying than real life ones. They feel belonging and responsibility towards their gaming community. The described findings seem to suggest that MMORPs cause addiction. However, the same study found that despite of the high number of hours played gamers do not show the symptoms of dependency.

Although ordinarily time use is highlighted, the most common and significant risk factor for addiction seems to be motive. Typically, the main characteristic of problematic gamers is that they use games as means of escape and mood modification. The combination of addictive features of games and problematic life situations and/or personality traits can lead to addiction if people try to cope by escaping to virtual realities (Hussain and Griffiths, 2009; Harviainen et al., 2015).

In conclusion, it seems that the negative effects of gaming are usually not closely connected to games and gaming. In other words, the problem is not gaming itself. It is usually merely a tool for people to escape from the real problems like low self-esteem, stress, or social anxiety. Excessive gaming, just as doing anything else excessively, has negative side-effects. The most important skills to learn so that one can be able to prevent adverse effects are: good time management, self-control and right motivation (rather a hobby than escapism).

The key importance of parent's mediation has been identified (Brooks et al., 2016). This study argues for the need for educational support for parents. Game education would serve to make parents more aware of the possible effects of games and more skilled in helping their children play video games in a manner that would intensify the positive effects and minimalize the negative effects of gaming.

2.3 Game Education

According to Harviainen et al. (2015) game education is an integral part of media education. The goal of media education is to help people become media literate, provide people with skills and competence to critically understand media and to function in today's society which is becoming highly mediatized and digitalized (Livingstone, 2004). "Game education is a tool and method for strengthening this literacy and for promoting a positive game culture." (Harviainen et al., 2015, 12) As computer technology and video games are relatively new phenomena, people from older generations do not have well established traditions, tools, and literacy to prevail in this modernized society. The gap in technological proficiency that can occur between adults and children is referred to as the digital divide (Choo, Sim, Liau, Gentile and Khoo, 2014) In gaming culture, being an inevitable part of today's information society, it is vital that the members of society get support from educators navigating in this field. The question emerges: who is responsible for providing this education? Media educators teaching in schools or doing youth work in libraries have undertaken this role. However, it is not only the schools that have major influence on a child's development and growth. In fact, the most direct influence comes from within the family. Parents, however, did not receive this education growing up. Although gaming highly affects the family life, parents expectedly do not have adequate knowledge about gaming and the digital world, therefore easily fail to provide their children with compatible advice and guidance. The focus of most of the discussion within the field of video games is the psychological effects of gaming, and the threats and dangers or on the contrary, positive consequences of gaming on the users, especially children and youth. These standpoints approach the subject of video games from the angle of the gamer. However, the

topic of gaming in the context of family life is lacking exploration. As the computer games are mostly played at home, the influence of parents is of key importance in educating children about the wise use of such programs.

Although there is literature available on parent education from recent years, it is not well-established and deficient in relation to media education and especially video games. The literature that exists is very fresh and limited, mainly empirical studies on parent education. A book that I would highlight is by the Evens Foundation: *Media Literacy in Europe: Inspiring Ways to Involve Parents* (Verbist, 2015). It is a collection of valuable case-studies without much conclusion or synchronized result. The lack of exploration in this field gives a gap for further research and provides an exciting opportunity for study.

As the Internet is gaining influence and every day Internet use is becoming more and more widespread among children, likewise, research and educational support is on the rise. The need for scientific research and cooperation between concerned parties (experts, educators, parents, policy makers) has been identified in recent years. The most significant effort towards filling this need has been made by "EU Kids Online" (see: eukidsonline.net). It is a multinational research network that was funded by EC's Better Internet for Kids programme. It aims to raise knowledge about the European children's Internet use (including gaming). It provides freely accessible data on online opportunities, risks and safety. EU Kids Online has worked in 33 countries, and data produced is available in many national languages including Hungarian. It can serve as a useful tool for media educators and parents. The data available is systematized in a way that regular educators or parents and anyone interested could easily gain knowledge on the topic. The network includes factsheets, videos, summaries of findings, policy recommendations, full reports, publications and even safety guides for families. EU Kids Online's network contains publications of some of the key authors that were referenced in this study, including P. Nikken. His research is mainly focused on the role of parents in children's media use. Another noteworthy figure who is available through EU Kids Online (publications as well as videos) is Professor Sonia Livingstone. Her work ranges from children and new media, internet use and safety to media literacy (see: Livingstone, 2004; Livingstone, 2015; Livingstone, Mascheroni and Staksrud, 2015)

This study will use the data available through EU Kids Online. However, the main focus of their network and this research is different. They examine children's online activities as a whole with weighed attention to social networks and safety, whereas the focus of this thesis is exclusively on video games in connection with family life and parental educational perspectives.

2.3.1 Parental Mediation

Concerning parents' already existing strategies of video game regulation the thesis will rely on the categories that were identified by Nathanson in connection with television (1999, 2001). Those key categories are active mediation, restrictive mediation, and co-viewing. Later these strategies were adapted in the context of video games creating the following categories: restrictive mediation, active mediation, and co-playing (Nikken and Jansz, 2006). Nikken and Jansz's study (Parental mediation of children's video game playing: a comparison of the reports by parents and children) is the most comprehensive study topic of this topic in our days (to mention a few other studies: Skoien and Berthelsen, 1996; Van den Bulck and Van den Bergh, 2000; Gentile and Walsh, 2002; Gentile, Lynch, Linder and Walsh, 2004) Nikken and Jansz's study is highly relevant to my research.

Restrictive mediation refers to time and content limitations that parents enforce on their children. Active mediation is parents talking with their children about video game contents, approve or disapprove media messages and content or provide information about video games. Co-playing is when parents sit down to play together with their children (Nikken and Jansz, 2006; Martins, Matthews and Ratan, 2015).

In Nikken and Jansz's study the three types of mediation strategies earlier used for television were confirmed and identified by both parents and children for video games. This fact highlights the belief that video game mediation and television belong under a more general construct: parent's mediation of media use. Just as game education belongs under media education. Therefore the findings about theses broader categories are of importance and could be relevant to game education.

The same study identified the strongest predictors of parental mediation. One of those predictors is demographics. Restrictive mediation is more often used with younger children and girls are enforced stricter rules of gameplay than boys. Another study (Nikken, Jansz and Schouwstra, 2007) found that older parents were more likely to use restrictive mediation and younger parents were more likely to use co-playing.

Based on the results of Nikken and Jansz's study (2006), the attitude of parents towards video games is the other significant predictor of parents' mediation strategy. According to their study, parents exercised more restrictive and active mediation when they believed that games mainly have negative effects and more often co-played with their children when they expected positive effects of gaming. Based on their findings, the attitude and preconceptions of parents are critical when thinking about the most important aspects of educating parents about video games and making them more skilled in helping their children play video games in a manner that would intensify the positive effects and minimalize the negative effects of gaming.

It is vital that parents use the right mediation strategies. However, if as a result of their negative preconceptions they use active mediation to explain only negative effects of video games, thus the tone of the mediation is negative and apply highly restrictive mediation, it is possible that they achieve the opposite effect they intended. "Their children might want to play more 'inappropriate' games, since these children may be more interested in the 'forbidden fruits' as their parents—in all their good intentions—call a lot of attention to those games" (Nikken and Jansz, 2006, 2007). Shin and Huh (2011) refer to the same phenomenon as "boomerang effect". They claim that particularly restrictive mediation causes resistance, especially amongst teenagers. They suggest that a more interactive form of video game mediation might be more effective. However, for parents to be able to do that effectively they need to have an open-minded and accepting attitude. In addition, Nikken and Jansz found that those parents that played video games themselves not only used co-playing more often, but applied all together all three forms of parental mediation more frequently. This finding seems to suggest that interest in video games and positive attitude towards sharing the experience of gaming contributes to a higher level and more balanced mediation.

Similar perspectives were examined in a study by Martins, Matthews and Ratan (2015). They explored if the tone or valence of the mediation has an influence on the outcome of the mediation. Their results show that active mediation is generally negative or neutral, very rarely positive. These results reflect the general attitude and negative view towards video games and how these attitudes affect parents' mediation.

2.3.2 Hungary's Media Literacy

To better understand the reason for this study and the importance of the thesis as well as the setting of this action research and the decisions made in the implementation, it is important to have an overall view of Hungary's educational policies on Media and Information Literacy. *Public Policies in Media and Information Literacy in Europe* (Frau-Meigs, Velez and Michel, 2017) is a comparative analysis of Media and Information Literacy (MIL) across Europe. The study includes Hungary as one of its research objects, thus helps understand the position of Hungary's MIL in the setting of Europe and compared to other European countries. As MIL is treated as a transversal discipline rather than its own subject across whole Europe and the focus is more so on competences than certification, it is impossible to have exact comparable data of a country's level of media literacy. However, there are other indicators that are descriptive of a country's stance of MIL. To examine MIL public policy and governance in the comparative study: Public Policies in Media and Information Literacy in Europe (Frau-Meigs et al., 2017), four main aspects were analysed as

indicators for a country's stance of MIL, which are: (1) definition of MIL, (2) policy framework, (3) capacity-building scheme in school system (resources, training, funding) and (4) stakeholders outside the school. In this chapter the first three aspects with regard to Hungary will be described.

Although European countries have a lot of similarities in how they perceive and govern MIL, there are differences due to the different cultures and history. Hungary's unique history played a crucial part in how MIL is governed and understood today. Just as in most post-communist countries, after the media regained its independence, media outlets were instrumentalized by political parties and private owners involved in politics, what stands true till today. In this environment it is particularly important to facilitate media literacy and critical thinking to understand where information comes from and what interests are behind the messages. In fact, Hungary was one of the pioneers in film education. However, more recently, as there are considerable changes in the field of media with the digital change, Hungary seems to concentrate on computer skills, whereas critical thinking and social involvement is less emphasized. Telecommunication and IT companies provide ICT education tools for children, parents and teachers. Hungary seems to lack a systematic approach to MIL and the recent centralization of education is slowing down the efforts.

The first substantial factor that European countries differ in is how they define media education and Media and Information Literacy. According to the above mentioned book and study, those countries that used to be under a communist regime are more focusing on IT as compared to countries with more democratic history that tend to define Media and Information Literacy in a more composite way and involve in the notion of media education critical thinking and social responsibility. According to the comparative study Hungary was the only country reporting only two literacies (media education and digital literacy) out of the four components of Media and Information literacy, which are media education, information literacy, digital literacy and computer literacy. This lack of comprehensive understanding of MIL, which is fundamental to effective media education, calls for further education in this matter, which must include teachers, students and parents. It is all in the focus of this thesis.

The second important aspect that this thesis covers as an indicator for a country's stance of MIL is policy framework. MIL is not a part of schools' curriculum as a separate subject, only Information Technology (computer science, digital skills) is its own subject, but other aspects of MIL such as critical thinking are integrated in other studies. Although the government does not finance MIL (there is no official budgets separated for MIL) in Hungary and is lagging behind in establishing national MIL policies there are positive initiatives from different sectors with governmental support. Media Council of the National Media and Information and Communication Authority is responsible by law for developing media literacy. They established the Center for Media

Understanding and Education in 2013. Its aim is to support children and teenagers in understanding of the secrets of media production and to cultivate safe Internet and mobile use. The center works in partnership with leading public and commercial television channels and news portals. Magyar Lapkiadók Egyesülete (Newspaper Publishers Association) has a nationwide program for high school students to introduce them to the culture of newspapers. There is also a positive influence of different international and EU programmes.

Hungary struggles with the same problems as most of the European countries, namely the governance of MIL (funding, policies, activities and results) and the related projects are not sufficiently reported, thus there is a lack of accountability in policy and it is impossible to assess how effective different projects and initiatives are.

The third important aspect of MIL, namely the capacity-builiding scheme is of much importance to my study, as the action research took place in a Hungarian school. Concerning resources, Hungary provides support for teachers mainly in film literacy. There are some educational materials available online for the general public through a prominent academic portal: Sulinet.

Teachers do not receive MIL education, most trainings are concentrated on the use of mediatized tools. Therefor the amount of media education in a classroom depends highly on a teacher's enthusiasm and mostly happens in occasional projects in a less comprehensive way. In formal education, in schools mostly only digital, information and computer skills are evaluated in schools in the form of students' examination, other skills related to MIL are not assessed.

2.4 Mapping the Most Relevant Issues Related to Game Education

The issues presented in the previous chapters are timely and relevant concerns for the parents of todays' society. The changing society and technological improvements lead to changing the practices of audiences which naturally indicates a shift in the use of media. Internet and video games are in daily use from an early age. Considering media usage and skills there is a significant gap between today's children and their parents. This digital divide urges parents for a response. Gaming is increasingly becoming an everyday reality in children's lives that parents have the responsibility to guide, trying to control the possible positive and negative effects of games. For this purpose, parents apply mediation strategies. These strategies fall under the following three categories: restrictive mediation, active mediation and co-playing. A balanced and intentional mediation is necessary for effective parental guidance with positive outcomes. As parents were born in a different era than their children with different technologies available, they did not receive the same media education and most likely did not receive any game education. Because of these reasons, parents

need support and more knowledge in this area to in order to be able to educate their children effectively about video games and apply the mediation strategies in a balanced way. The objective of this thesis is to find ways to educate parents so that they can become the primary game educators of their children, and so that they can do it effectively. This thesis also set out to contribute to a necessary positive change in educational practices at least on a local level. As the action research is implemented in a Hungarian elementary school, Hungary's stance of media- and game literacy is highly relevant. Nowadays, considering media education, Hungary seems to concentrate on computer skills, whereas the aspects of critical thinking and social involvement is less emphasized. MIL (Media and Information Literacy) is not a part of schools' curriculum as a separate subject and Hungary is lagging behind in establishing national MIL policies. Although there are positive initiatives from different sectors with governmental support aiding educators with tools for media education, there is very little support and emphasis on helping parents become the primary media educators of their children.

The research question that this thesis aims to answer and discuss through the action research is the following: "How to support parents in educating their children about video games through reinforcing co-playing and other mediation strategies?"

3 IMPLEMENTATION OF THE RESEARCH

3.1 Digital Afternoon

The study was implemented as part of my internship tasks at a Hungarian elementary school during the first semester of the academic year of 2016-2017. The action research was conducted in the Örömhír Általános Iskola (Good News Elementary School) in the city of Győr.

Győr is one of the biggest cities of Hungary (population: approximately 130 000) located on the north-west part, close to Vienna (Austria). Partly because of this location and the connection to the west, it is one of the most dynamically growing cities in Hungary. It has a vibrant culture with outstanding sport achievements, historical sights and social and leisure activity options, festivals, suited for the modern taste. It has numerous institutions for elementary and secondary level education, and also has a university with many different faculties and approximately 11 000 students. The job opportunities and good educational landscape makes it an attractive city for families with children. (city's website: www.gyor.hu)

The Örömhír Általános Iskola, where the action research took place, is a private elementary school which had 129 students and 30 employees at the time of the research. In addition to being a school that teaches all the required curriculum of the state, it has an art school where all main branches of art are available for students to practice. Music, including singing and many different instruments, dancing, fine arts (painting, drawing) and performing art (drama). Compared to other schools in the area it is a rather small one with a small number of students in a class, which makes it possible for the teachers to pay special attention to the students. This aligns with the school's mission, which is to pay special attention to individual needs and talents and to provide a safe environment for learning where children grow in knowledge as well as in character. This is accomplished by cooperating closely with parents. This policy is applied when accepting students and with even greater relevance when hiring teachers. This common goal and attitude was a big influence on my work at the school and helped in the establishing of the action research event since parents as well as teachers were already used to cooperation.

Örömhír, being an alternative school with small classes, attracts many parents with children with special needs, may it be learning difficulties or behavioural problems. Even though the school

is relatively small, many different children from different backgrounds attend the school. This fact was a very interesting factor when conducting my action research.

The workshop, that was named Digital Afternoon, was a parent-children co-playing event in the school and was organized on October 21. 2016. It lasted for approximately two hours and consisted of a short game based on a paper about media education, parents and children co-playing video game activity and informal casual discussions and cakes and drinks at the end. The participation in the workshop was voluntary. The participants were chosen from third- and fourth-grade students (8-10 year-olds), together with their parents and some of the teachers that were of key importance in the children's media education and their lives in general. That age group was chosen because this age is right before the peak considering time spent on video gameplay (it peaks at age 11-14). Children normally do not yet spend so much time in front of the computer (8-10 year olds average 46 minutes a day, 11-14 year-old spend an hour more, 1 hour 46 minutes a day) however, parents spend the most time and energy setting up rules and mediating their children about it (Rideout, Foehr and Roberts, 2010). Therefore this is the age group when children establish their video game habits and it is also the time when parents have the most influence to guide them in this area.

Ten teams participated in the event, as the capacity of the school could not take more (computers, capacity of rooms). Out of those teams the majority were parent-child teams, but two of the teams were teacher-student, because the parents could not come, yet the children wanted to play, and one team was a grandfather-grandchildren team.

The interviewees were chosen from the group of parents who had confirmed to participate in the event. The selection of the interviewees happened based on their different demographics in order to have the most variety possible. Although two teacher-student team attended in the workshop, they were excluded from the interviews as the main focus of this research is on parents and their educational strategies. Five parents were interviewed, each of them twice, once before and once after the event. The interviewees ranged from a person with doctoral level education, and on the other end, a parent who has only finished basic (8 grade) school. They varied greatly in their level of involvement with the school. One parent was the school's employee and the leader of the parent union, another parent, according to their testimony, had not often been at the school.

Nikken and Jansz's three categories (see chapter 2.3.1) were utilized in the pre-interviews, I explicitly talked about them in the after-event conversations and they were also explained in the practical help-package the parents received after the event.

3.2 Action Research

Action research seeks to understand a specific matter from the perspective of people that are most effected and involved in it. It assumes participation and by cause of its participatory nature it is also its explicit objective to bring about empowering benefits within a specific timeframe and location. (Savin-Baden and Wimpenny, 2007).

In the history of action research educational intervention in the form of adult education with the ultimate purpose of social change has been a widely accepted practice (Boog, 2003). By using this method this thesis benefits from the well-established research tradition used specifically in the field of study in focus (parent education), which lessens the probability of errors in this research.

Choosing action research as my research method corresponds with my aim and motivation concerning the study which is to contribute to a necessary positive change in educational practice at least at a local level. According to the traditional worldview and purpose of action research it is designed to develop skills of the research subjects and improve the functioning of institutions. Its goal is both to generate knowledge and understanding (Boog, 2003). On the bases of the above described interpretation I intended this research to develop understanding between parents and children and in a broader context to contribute to the development of game education. In my action research I designed a workshop for parents and children where the main activity was playing video games together. Co-playing provides a common experience for children and their parents that help parents to find ways later to participate in their children's media world, which can serve as the first step in the change. The aim of the workshop was to ultimately help parents in raising their children to be responsible media users.

Planning the action research project included creating a timeline for the research, negotiations with the school staff, parents and my professor, planning, arranging and executing the interviews and reading and researching on my topic (media education, parents' education, game literacy) so that I would be able to lead the digital afternoon event with sufficient expertise.

3.2.1 Data Collection

Source	Nature of data	Quantity
Interviews with parents	Audio recordings of interviews before and after the workshop	Five interviews before and five after the event, each interview lasting approximately 10 minutes

Research diary	Self-written diary of observations about the workshop	About three pages of data
Group discussion	Audio recordings of the discussion with participating parents and teachers after the event	10 minutes long feed-back session

TABLE 1 Summary of Collected Data

Three main sources of data were collected which together served as the base of analysis and results. The mentioned sources were: pre- and post-interviews, research diary, group discussion after the event (see table1). The primary source of data came from the interviews. Participants were interviewed before and after the workshop to be able to compare the results and study the impact of the workshop. The pre-interviews were implemented aproximately two weeks before the event and the post-interviews a month after the event. The delay between the workshop and the post-interviews was partly intetional, since my purpose was to examine wether the workshop had had an effect or had made any changes in the families' daily lives. The other factor behind the delay was that right after the workshop the school's annual autaumn break took place, which delayed my process. The pre- and post-interviews were conducted following the principles of semi-structured interviews that are often used in qualitative research. As the thesis seeks to understand a phenomenon, a problem, and seeks to find an answer to the "how" question (see the research question in chapter 2.4), it was a logical step to use a more qualitative strategy of data collection encouraging participants to share rich information and opinions as opposed to using for example questionnaires. Semi-structured interviews are the most widely used data collection strategy for qualitative research as they grant the participants to express their view on a matter to depth, and even share personal details (DiCicco-Bloom and Crabtree, 2006) The pre- as well as the post-interviews were semi-structured, with five open-ended questions and depending on the conversation, some more questions as they arose from the dialogues. The questions served as more of a guide than a forced structure for the interview. I prepared an interview guide before the interviews which consisted of the topics that needed to be covered. As advised by Cohen and Crabtree (2006), the guidelines were printed whereas the interview itself was tape-recorded and later transcribed. In the conducted interviews the questions in the pre- and post-interviews were either the same, or modified in a way that encouraged parents to talk about the impact of the event on the area discussed. For example, the first question in the pre-interview was: "What does your child usually play? What do you know about the games?" In the post-interview the first question was: "Was there any change in the last month concerning your

child's playing habits. The analysis of those interviews contributed to the understanding of what the main results of the workshop were, and which practices had the biggest impact on people.

What happened	Problems/Challenges	Personal reflections
14:30 The parents started to gather in the assigned meeting room with their kids	Because they had to find their kids who just finished the school day most of them were 5-10 minutes late, which was an instant challenge.	I was worried if I can keep the time of the event, and being late will mean having to cancel one of the program points. Fortunately everybody seemed flexible, and I also created initially the event's timeline with a built in extra time knowing the „culture" of time-use
14:40 We started the event by me introducing myself, the event, and saying a few words about media education	My audience was very varied. Parents grandparents and kids. It was hard to keep everyone's attention and choose a speech style that appeals to everyone. Because I only realized this challenge during my speech I kept it shorter than I planned. Leaving out some educational tips. However, because I had those written down for the parents in their „help-pack", I referred to that, and that they can read more there.	I felt confident talking. It was flattering to look at kids with their parents and see families sitting together. I also took a mental „image" of the teams to remember them later on in the event, and after that when I continue working at the school.
14:45 I distributed the short test papers to the teams, (parents-kids) which had two tasks on them. I asked them to fill it out together, and told them it was a warm-up exercise.	I needed to take attention to the pace they are filling the task out and keep in mind the events schedule, and balance these two. I was prepared for shorter time doing this exercise.	It was nice to see the enthusiasm on the teams working together.

TABLE 2 Feature from my research diary

My observations about the event were outlined in my research-diary (see table 2.) I kept my research diary during the event with details about the different stages of the workshop and discussions with parents and other participants. I also wrote down my personal reflections since it was relevant in a participatory research. My research diary will serve to identify themes and analyze the practice that was used at the workshop with the intention to support parents in educating their children about video games.

As a complimentary source of data, audio recordings from the parent's feed-back group discussion right after the workshop were made. Thus, this thesis benefits from various forms of data-collection instead of only depending on one, following the tradition of relying on more sources widely used in qualitative research (Creswell, 1994).

3.2.2 Action Research Cycles

The planning was constructed using the action research framework adapted from Savin-Baden and Wimpenny (2007). According to their theory research planning consists of 5 cycles:

Step 1- Identifying and Clarifying the Original Idea:

Following the Action Research Cylcle (Savin-Baden and Wimpenny, 2007), the first stage of the research is to identify the original idea. The original idea concerns the situation that the project aims to develop. The idea was established with the use of existing literature and discussion with the local principle of the research site. The situation the action research wishes to improve is that although parents' have great responsibility in game education, they do not get sufficient support in this matter. In the thesis the clarification of the original idea is identical with the purpose of the study which is to argue for and discover ways of educating parents about video games in order to strengthen media literacy and promote a positive game culture.

Step 2- Reconnaissance:

In this cycle the objective is to describe and explain the main facts of the situation to see more clearly what factors affect the state of the case. I piloted pre- interviews with participants before the workshop in order to find out if I identified the most important facts. The implication of that phase was the refined research questions. Instead of asking about the effects of video games and digital divide on family life, the thesis concentrates on a more practical question: „How to support parents in educating their children about video games through co-playing and other mediation strategies?" In addition to the research question, the study supplementary examines parents' and 8-10 year-olds' knowledge about video games, and how the difference effects how they perceive video games.

Step 3- Constructing the General Plan:

(1) A revised statement of the general idea: parents' need support in game education

(2) Statement of factors the researcher is going to change: Changing level of knowledge and changing attitude and influencing mediation strategies (whether they see video games as positive or negative).

For changing level of knowledge and perceptions a practical "help pack" was produced for parents which was distributed at the beginning of the workshop. The help pack included: short information about internet safety, cyberbullying, mediation strategies and potential positive and negative consequences of gaming. The document also contained useful links of educational and other constructive games and parental control softwares.

I implemented a short media educational paper exercise, where the children and their parents together answered questions implicating their digital knowledge. This exercise consisted of two small separate tasks copied from a Hungarian media educational book that was created as a part of a project by the National National Media and Infocommunications Authority of Hungary in cooperation with the Visual World Fundation (Kozák, 2015). The first exercise was about practical knowledge of the Internet and technologies and the second one about Internet safety

Following that, they participated in a few minutes guided discussion about the results and the experience. The applied exercise helped to set up the tone of parents and children working together and highlighted the potential difference in the scope of the knowledge of parents and the children in this area.

The main activity of the workshop was children and their parents co-playing, which also served as the main tool for changing the attitude and generating understanding between the parents and their children.

(3) A statement of negotiations the researcher had or will have before undertaking the proposed course of action: discussion with my responsible professor, the principle of the local school where the research was conducted, negotiations with participants, teachers, parents and children and advertising the event.

(4) A statement of required sources:

a. Parent educational project plan /workshop outline
b. Room where the project takes place
c. Computers and games for the event
d. Material for the "help pack"

Step 4- Developing Next Action Steps

I set up the date of the event, advertised it, collected the confirmations about the attendance, planned and executed the pre-interviews and planned the after-event group discussions.

Step 5- Implementing Next Action Steps

As a successful action research is evident in the improvement of practical knowledge, individual skills, competences and ability to solve problems, it is difficult to measure exact results as the outcomes are often unseen and indirect. However, researchers that developed this method emphasize the importance of identifying and sharing experientially gained knowledge among the participants

(Guba, 1990). Such dialogues often lead to new presentational knowledge. After-event group discussion and post-interviews were employed for this purpose.

3.3 Analysis of the Collected Data

To be able to interpret the collected data and answer the research question, the thesis will rely on the method of thematic analysis (TA). It is a method used especially for qualitative content analysis, and it is not bound to any particular theoretical framework. It helps researchers identify patterns of meaning and makes sense of them through the data. (Clark and Braun, 2014). Following Clark and Braun's approach of TA, the analyses will be executed in six-phases: (1) familiarization with data and identifying items of potential interest, (2) generating initial codes, (3) searching for themes, (4) reviewing potential themes, (5) defining and naming themes, (6) producing the report (Clark and Braun 2014).

The three groups of data was all analyzed following the steps above. As the workshop and interviews were executed in the Hungarian language, whereas this thesis is written in English, for the sake of simplicity only the relevant data was translated and coded. Searching for and determining which parts of data is considered relevant was the very first step in the analytic process.

After familiarizing with the data and identifying the relevant data, the next step is coding. A code is a short word or phrase that is assigned to capture the essence of a portion of data. Coding means recognizing parts of the data to be important and attaching labels to them. (Fereday and Muir-Cochrane 2006; Saldaña 2009) In this thesis a combination of inductive and deductive method is used, therefore latent codes as well as semantic codes were employed. Semantic codes are mostly based in the data itself and inductively arise. Latent codes often originate from the theoretical framework. (Clark and Braun, 2014). In this thesis these latent codes emerged from the theory of the three mediation strategies concerning gaming identified by Nikken and Jansz (2006). At the data collection process the interviews were intentionally formulated to inspire parents to talk about their existing game mediation practice and hardships and mediation strategies.

For this study, before coding, a template was developed (as suggested in other studies and books dealing with coding: Fereday and Muir-Cochrane 2006, Saldaña 2009) based on the above mentioned theoretical concepts by Nikken and Jansz (2006) (see table 3). The purpose of the coding template is to support the coding process and bring clarity and credibility to the study. This coding template defines rules for data inclusion to each code. Based on Fereday and Muir-Cochrane's example (2006, 85.), codes were identified by the following: (1) the code label or name, (2) the

definition of what the theme concerns and (3) a description of how to know when the theme occurs. The template created the above described way provides a practical guide for recognizing the categories.

Label	Definition	Description
Restrictive Mediation	Applying guidelines for gaming (concerning content and time-use)	Parents forbid certain games or specify games that are appropriate. Parents monitor and set rules about when and how much children can play.
Active Mediation	Engage in conversation with their children about games and gaming	Parents tell children that games are bad or good. Parents talk about game content. Parents talk with children about children's experiences through gaming (emotions, social aspects, game behavior etc.).
Co-playing	Playing together	Parents play together with their children, oversee, encourage or immerse in gaming.

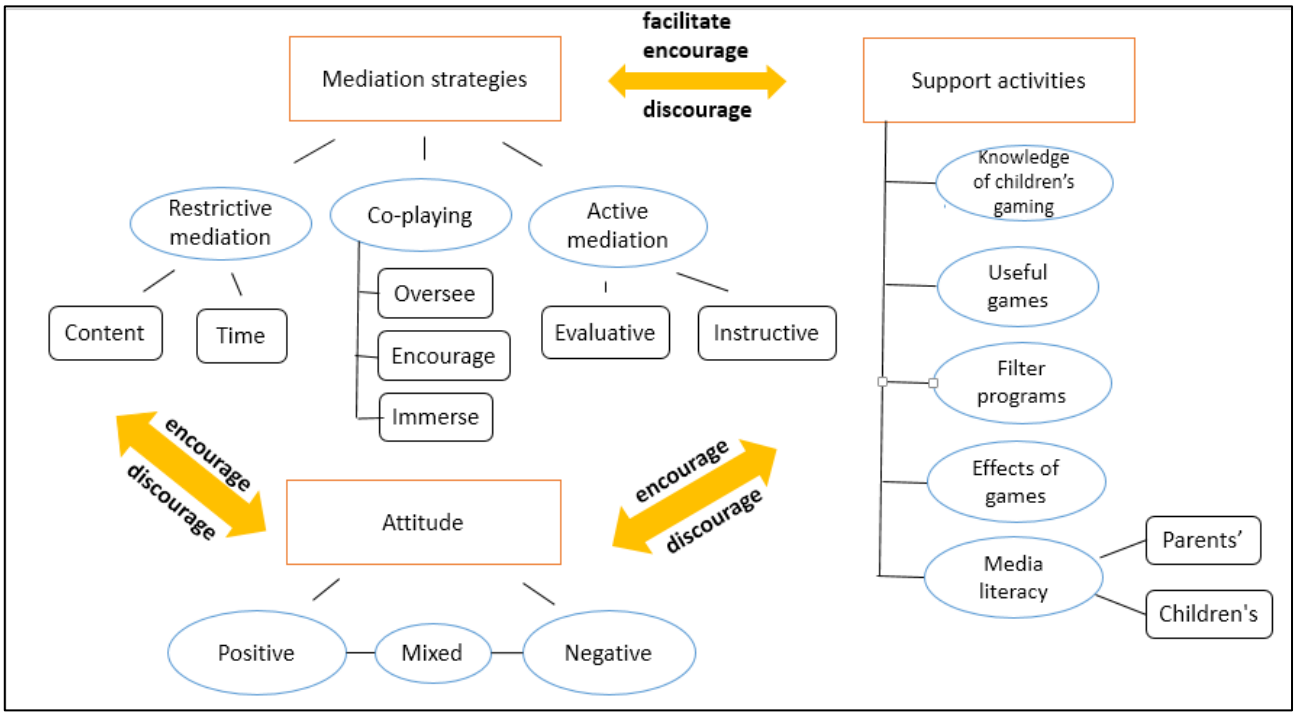
TABLE 3 Coding template based on Nikken and Jansz's (2006) mediation strategies theory

As advocated in several studies, code is generated in more cycles reducing errors and allowing for codes to naturally arise (Fereday and Muir-Cochrane 2006; Saldaña 2009). In this thesis, after following the coding template and identifying codes based on that, in the second cycle of the analysis more inductive categories and subcategories were formed refining and adding to the codes from the coding template.

4 FACTORS INFLUENCING MEDIATION STRATEGIES

After coding and reviewing the collected data several times in relation to the research question, three major data group and some sense of their relationship were identified. These themes are the following:

1. Mediation Strategies
2. Support Activities
3. Attitudes



PICTURE 1- Thematic Map of Factors Influencing Mediation Strategies

As suggested by Clark and Braun (2014) a thematic map was produced which is presented in Picture 1. This thematic map illustrates the outline of factors influencing parents' mediation, which itself is the greatest result of the research as it greatly helps in answering the research question:

"How to support parents in educating their children about video games through reinforcing co-playing and other mediation strategies?" In accordance with this map different points of the cycle illustrated can be further studied as an intervention point.

As a starting point the research relied on the three mediation strategies which also form the focus point of the thematic map also. These strategies easily emerged from the data as anticipated. In connection with them, as the influencers and drivers of mediation strategies, other categories appeared as well: Support Activities and Attitude. The most obvious connection is that these categories have an influence on the mediation strategies. The more positive the attitude is the more likely it is for parents to use all of the mediation strategies as opposed to only relying on one-sided mediation. It is also apparent that Support Activities encourage the use of mediation strategies. For example the possession of useful games will drive the parents for co-playing or even encourage them to explain to their child why they should be playing those specific games which discourse is active mediation.

During the repeated reviewing cycles the names and definitions of the themes were shaped and more connection between the themes surfaced. The greatest change that was made in the thematic map compared to the first version was due to the discovery that the three main themes work as a cycle to some extent. The arrows in the diagram had to be made two-way arrows. Although the influences on mediation strategies are the most apparent, it seems that the Attitude directly influences both other themes (mediation strategies and support activities). In other words all the categories influence each other. In fact, these influences not only work one way. For example, some categories of Support Activities also have a direct influence on the Attitude. More precisely, the category of useful games, for example, encouraged positive attitude-change in parents. In the group discussion more parents confessed that they used to think that games were all silly and pointless, but during the workshop, having seen and tried out logical games, their attitudes changed. One parent said:

> *…but I am maybe a little happy that I could experience this. So far, I have seen the bad side of computer gaming and that they are (children) always just pressing buttons and pressing buttons. I see now that logical and very clever games still exist.*
>
> *(Mother 1, feed-back group interview)*

Similarly, although the influence of support activities on mediation strategies is obvious, sometimes influence also works the other way. For example, a parent, while co-playing with children, may experience something that encourages her to seek out useful games or even filter programs.

4.1 Mediation Strategies

The phenomenon of three mediation strategies were identified by Nikken and Jansz (2006) and are confirmed by this study. All parents interviewed had already had existing mediation strategies that can be put under the three discussed categories. The mediation strategies are used by different parents with different weight. A well-balanced use of them is important for the sake of effective game education. In this study the factors that influence the mediation strategies were considered and through the action research the three mediation types, especially co-playing, were reinforced. The following subchapters describe how the direct use of one mediation category, namely co-playing, influences the other mediation strategies and the whole cycle presented in the thematic map (Picture 1).

4.1.1 Co-playing as an Effective Intervention Point

In this specific case study it is concluded that an effective way to educate parents about video games is to provide a common experience with their children through co-playing which often leads to a positive attitude change in parents and aids them with activities that facilitate all three mediation strategies. Based on these results, co-playing seems to be an effective point to start the game education of parents as it potentially influences the whole cycle presented in the thematic map (Picture 1).

Co-playing can be one of the easiest and most practical intervention points as it can be easily executed, as in a similar event to the Digital Afternoon described in this thesis. The structure and ideas of this action research can serve as a practical guide for developing other similar events, workshops or even regular co-playing sessions. Such events can also be easily monitored as the participants will mostly take part in the activities they signed up for. As opposed to active mediation, which is rather theoretical and intangible, co-playing provides a practical starting point for change.

Most of the parents reported some effect or change of the co-playing event may it be attitude change, new games introduced in repertoire, or just simply talking with their kids about the experience of playing together (active mediation). However, one parent expressed no change or effect of the event. This might be due to their special place and behaviour during the event.

> *During the game there was one child who got discouraged at the very beginning and decided not to join the games even though her father encouraged her. Finally she played on her own tablet while the others were playing the chosen games with their parents the.*
>
> *(Research Diary, 21.10.2016)*

Although the parent in question said right after the event that they will try the same games at home and he will encourage his child, in the post-interview, however, he admitted that they did not try again. It seems, that because of the inactivity of the child in the event, which prevented her from co-playing, she was playing on her own with her own games, the event was not effective to them.

Nikken and Jansz (2006, 2007) and Shin and Huh's studies (2011) suggest that parent's interest in video games and his or her positive attitude towards sharing the experience of gaming contributes to a higher level and more balanced mediation. Nikken and Jansz found that those parents that played video games themselves not only used co-playing more often, but applied all together, all three forms of parental mediation more frequently.

4.1.2 Subcategories of Co-playing

During the reviewing of the collected data and contrasting them to the theoretical framework, namely the theory of mediation strategies (Nikken and Jansz, 2006), subcategories of co-playing emerged. Although the subcategories were not mentioned explicitly in Nikken and Jansz's study, they surfaced in the literature as well as in my data. The parents expressed three distinct ways of playing together with their children, each way marking different degree of involvement.

1. Oversee

   Parents spend time with their children while they are playing, but only watch and sometimes comment on the playing.

2. Encourage

   Parents express their excitement and follow the gaming emotionally, they cheer for their children.

3. Immerse

   Parents are completely involved in the playing physically as well as emotionally.

Most reflections about these subcategories happened during the feed-back discussion. A teacher shared about the way she was involved in the co-playing, encouraging her player partner:

> *I said to her to give a high-five, and she really liked it.*
> *(Teacher 1, feed-back group interview)*

Others considered themselves being completely immersed in the experience, for example a mother said:

> *I became a child again a little bit, because I know it better, and I wanted to take the mouse from him.*
>
> *(Father 4, feed-back group interview)*

In the post-interviews different levels of involvement of co-playing were mentioned again. Some expressed that they were sitting next to their child while he was playing, others shared how they played against each other with their child at home.

The subcategories of co-playing can be important because they provide practical examples and manners how co-playing can be done. The data suggests that the different ways of co-playing might have different level of influence on the child as they mark different levels of involvement. Nikken and Jansz (2006, 2007) and Shin and Huh's studies (2011) suggest that a more interactive form of video game mediation is more effective. However, those subcategories and their effects should be further studied.

4.2 Support Activities

In addition, as to complement the theory of mediation strategies, another theme has formed through the data which is Support Activities signifying the activities and factors facilitating and influencing mediation strategies. Based on the data, these were the factors that arose:

1. Knowledge of children's gaming
   Parents know and track what and how their children play.
2. Useful games
   Parents search out "good games" for their children.
3. Filter programs
   Parents use, search for filter programs on the gaming device to only allow appropriate programs to be available.
4. Effects of games
   Parents observe the effects of the games on their child.
5. Media literacy
   a. Parents'
   Parents assess their own knowledge and skill about games.
   b. Children's
   Parents assess their children's game and media literacy as compared to their own.

When asked about information that would be useful for them on the event, parents referred to advice about mediation as well as to the above mentioned support activities that can facilitate mediation. Useful games were mentioned the most, four out of the five interviewed parents said in the pre-interviews that some specific game suggestions (strategic games, language-learning games, games about natural sciences) would be of help to them. In the post interviews and feed-back discussions the games that were used in the event was a prominent topic that the parents wanted to highlight. During the group discussion one parent said:

> *I do not look for similar pages at home, I could see now, that there is a thousand kind (games) that are specifically suitable for this age group.*
>
> *(Father 5, feed-back group interview)*

Some parents even asked if they can keep the printed page with the links and availability of the free-to-play games that were used on the event.

The theme of the knowledge of children's gaming was also present in all forms of the collected data. In the pre-interviews parents mostly mentioned the genres of the games their children play with (football games, puzzle games, logical building games). In connection with the event, other habits of the children's gameplay came to surface. During the event conversations emerged when a child expressed that he knows and usually plays with similar games as they were playing with in the event. In the post-interviews parents expressed not only what genre their child plays with but how they see their children's preferences of games. For example the father of the girl, who did not want to participate in the event and just played on her own, expressed in the post-interview, as to analyze her child's gaming behaviour, that his daughter only likes playing games alone. He also highlighted that it was interesting to see on the event how children were able to play against each other. The knowledge of a child's gaming behaviour can be of help for a parent when assessing the right mediation strategies for help and this information might lead to conversations between the child and the parent, leading to active mediation. However, this specific parent also said that they had not talked about the experience since the event and that there had not been any changes in the child's gaming. The lack of achieved change might have been due to the inactivity of the child at the event, as the main point of the action research, co-playing was not fulfilled in her case.

Some parents asked for help with filter programs and a few of them said they already use some on their computer. Parents stated that they would want to hear more about the effects of games when asked what they want to hear of at the event.

> *I don't know how dangerous the type of games are he plays with.*

(Mother 1, pre-interview)

Regarding the media literacy of children and parents, one parent was specifically surprised by the difference between the parents' and the children's knowledge and skills of technology. The parent in question (father of 10-year-old girl) mentioned several times during the post-interview that his daughter knows more about technology then the parents do. That fact seemed to discourage him from playing together with his child. However, another parent expressed that she looked up some things after the event so as to develop her own media literacy

4.3 Attitude of Parents towards Gaming

Based on the interviews, the attitude of the parents towards gaming seemed to be important concerning their usage of different forms of mediation strategies. The workshop caused an attitude change in some of the parents, therefore, their attitudes were found to be significant for the data and the research question and the relevant data was coded.

All parents expressed some extent of attitude change when asked what effect the workshop had.

> *I have somewhat reinterpreted the whole thing. My stomach is not in a knot anymore when he sits down to play.*
>
> *(Mother 1, post-interview)*

In addition, some parents specifically said that the event led to an attitude change which encouraged them for co-playing.

> *The only thing that changed is that I sit next to him now (when playing) and I view this thing (gaming) differently.*
>
> *(Mother 1, post-interview)*

The interviews before and after the event as well as the data from the focus group confirms that co-playing boosts attitude change. The data also indicates that with a more positive attitude towards video games it is more likely to engage in co-playing. In fact, a positive attitude not only boosts co-playing but has a positive influence on other mediation strategies. One parent (mother of 10-year-old boy) in the post-interview mentioned restrictive mediation in connection with attitude change. She explained that because she views the issue of video games after the event differently,

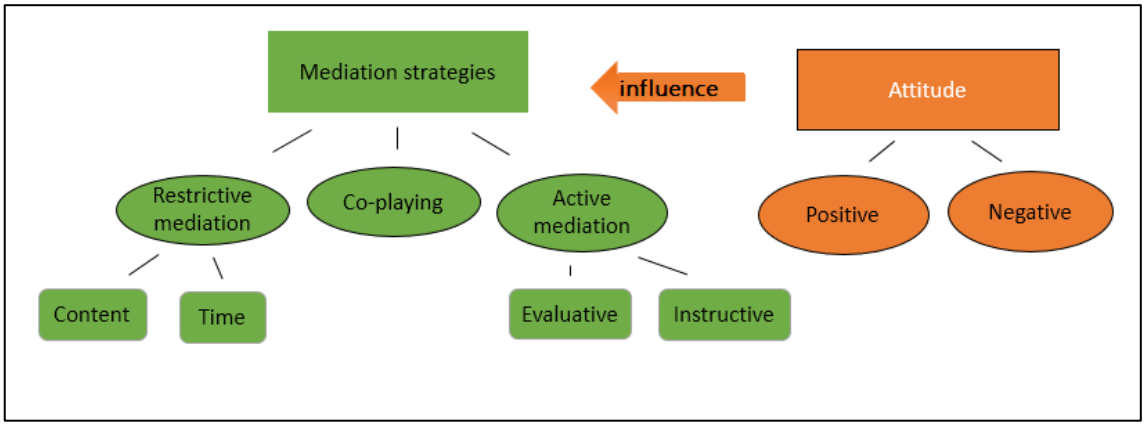
she now just uses a simple time restriction and has an easy mind after it, does not worry so much anymore. The same parent also said that they talked about their experience in the event with her son and they looked at the new games together and integrated them in their own game palette. This parent's confession affirms that a positive attitude boosts all three mediation strategies. This result aligns with the results of Nikken and Jansz's study (2006). They concluded: "…parents with an optimistic view of game effects more often played together with their children... In addition, parents who more often played themselves were not only also more prone to co-playing, but also were more apt to apply the other two forms of mediation." (198) Nikken, Jansz and Schouwstra's study (2007) as well as Shin and Huh's research (2011) later confirmed the same results.

Parents' attitude is important not only because that determines how much mediation they apply but also because it determines how they apply it. Shin and Huh (2011) in their article talk about the importance of the tone of mediation. They claim that if as a result of their negative preconceptions parents use active mediation to explain only the negative effects of video games and apply highly restrictive mediation, it is possible that they achieve the opposite effect they originally intended. They refer to this phenomenon as "boomerang effect". Parents need to have an open-minded and accepting attitude in order to be able to mediate their children effectively.

4.4 Mapping the Key Findings of the Study

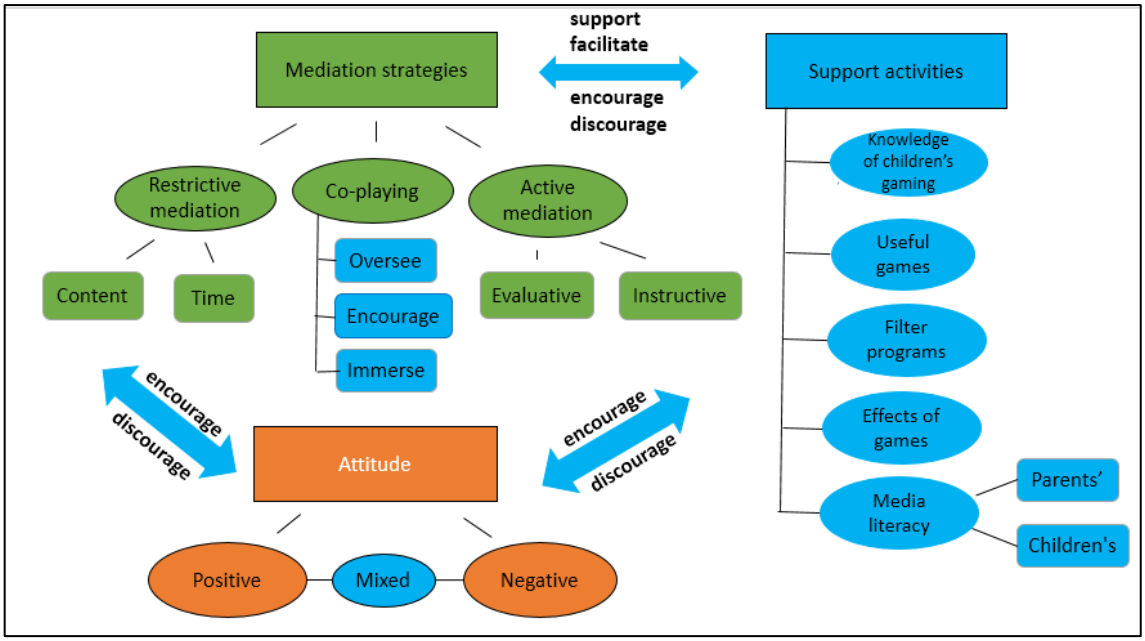
All of the most important results of this study are in connection with the parental mediation theory (Nikken and Jansz, 2006) described in chapter 2.3. Their theory has been accepted, further studied and used in the field of game education. This action research, firstly, confirmed those categories and the already identified relationship of the categories and parents attitude towards gaming. Secondly, it has added other influencing factors and subcategories to be considered.

To make it more explicit and easy to follow this study presents these theories on a diagram here. Firstly, the connections and correlations found prior to this study and confirmed in this thesis are depicted (Picture 2) Although the three mediations theory and correlations were discovered and described in details in studies prior to this thesis, it has not been visually illustrated before. The main theory described by Nikken and Jansz in their study (2006) is illustrated with green color. The later added connections based on Nikken and Jansz's study (2007), Shin and Huh's (2011) and Schouwstra's (2007) research describes the connection of parents' attitude towards video games and mediation strategies and are illustrated with orange color.



PICTURE 2- Theory of Mediation Strategies

Secondly, the complemented theory is presented with added factors that influence mediation and the identified connections between these factors as the main findings of this study. (Picture 3) The added factors and dimensions, as the main findings of this study, are illustrated with blue color.



PICTURE 3- Complemented Theory of Mediation Strategies

The most important findings and statements about the complemented theory are mapped out in the following five points:

1. **The Cycle of Mediation Strategies**

The greatest discovery that was made on the thematic map, compared to the original version based on previous research (Picture 2), was due to the discovery that the three main themes work as a cycle. Although the influences of complementary categories (Attitude and Support Activities) are the most visible on Mediation strategies, it seems that these two categories influence each other as well. In other words, all the three categories have an impact on each other. This cyclical nature of the factors influencing parents' mediation is important when considering intervention points for a positive and balanced game education.

2. **Co-playing as an Effective Intervention Point**

Co-playing seems to be an effective point of intervention that potentially influences the whole cycle presented in the thematic map (Picture 3). It is concluded that one effective way to educate parents about video games is to provide a common experience with their children through co-playing which often leads to positive attitude change in parents and aids them with activities that facilitate all three mediation strategies.

3. **Subcategories of Co-playing**

Subcategories of co-playing emerged from the collected data. The parents expressed three distinct ways of playing together with their children, each way marking different degrees of involvement. These subcategories of co-playing are: oversee, encourage and immerse. The data suggests that the different ways of co-playing might have different level of influence on the children. These subcategories are valuable because specific behaviour of parents that has the most positive influence can be more directly studied. They also provide practical examples and manners for parents about co-playing and the ways it can be accomplished.

4. **Support Activities**

A completely new theme has been formed through the collected data which is Support activities meaning the activities and factors facilitating and influencing mediation strategies. These activities and resources or the lack of them might encourage or discourage parents for using mediation strategies. The identified Support activities are the following: knowledge of children's gaming, useful games, filter programs, effects of games and media literacy (both of the parents and children).

5. **Attitude of Parents Towards Gaming**

The attitude of the parents towards gaming is confirmed to be important concerning their usage of different forms of mediation strategies. A positive attitude towards video games has a positive influence on using all mediation strategies and exceptionally boosts co-playing. It is important for parents to have an open-minded and accepting attitude to be able to mediate their children effectively.

5 CONCLUSIONS

In the following chapter conclusions and implications of the introduced findings and the evaluation of the study are presented. Firstly, the main findings in relation to other studies and theories will be discussed. Potential and enviable areas of further research are introduced. In this chapter, based on the findings, more comprehensive media and game education is argued for on a policy level, considering teachers' education in Hungary and all over Europe, school initiatives for parent involvement and program improvements in associations and institutions. Finally, the chapter describes the limitations and importance of this study.

5.1 Conceptual Implications

The issues presented in chapter two are relevant concerns for the parents of todays' society and for the specific parents that participated in the action research of this thesis. The interviewed parents acknowledged and commented on the same issues that were the key drivers of this thesis and are described in the second chapter of this paper. The changing society and changing practices of audiences and digital divide urges parents for a response. One parent described it this way:

> *Video games are the way of the future whether we like it or not.*
> *(Father 3, post-interview)*

Gaming is increasingly becoming an everyday reality in children's lives that parents have the responsibility to guide, trying to control the possible positive and negative effects of games. For this purpose, parents apply mediation strategies. To be able to educate their children effectively about video games and apply the mediation strategies in a balanced way, parents need support and more knowledge in this area. This thesis aspired to find ways to educate parents so that they can become the primary game educators of their children and so that they can do it effectively. The results of this thesis map out the key factors that might influence parents' mediation strategies. The thesis builds on the already existing theory of the three parental mediation strategies (Nikken and Jansz 2006) and adds further dimensions that can be considered (see Picture 3) and should be studied further. As an addition to the theory of mediation strategies through the data, another theme formed which is

referred to as activities and factors facilitating and influencing mediation strategies. Although the emerged theme was not the original question of the study, however, the discovered factors seem to directly influence parents' attitude and the mediation strategies they use, these factors and the connection between them and the mediation strategies should be studied further.

This thesis partly answered the research question by providing a practical example of educating parents about video games, however, it has also led to further research questions and theories that should be answered and tested through further research. The discovered added dimensions (presented with blue color on Picture 3) should be confirmed through various quantitative research to make the formulated theory more defined and more reliable. The relationship between the added dimensions and the influencing factors regarding mediation strategies (presented in Picture 1) should be further tested and studied in relation to parents, schools and teachers. Some of the additional questions considering parents are: Are there any more support activities that parents tend to rely on but was not identified in this study? What factors influence parents' mediation strategies most directly? Which specific support activities influence which of the three mediation strategies and to what extent? (For example: Will parents finding useful games mostly encourage restrictive mediation, active mediation or co-playing?)

This study introduced one specific way of educating parents about video games. This event based action research was executed in a school with the help of teachers. It would be important to consider further the role of teachers and schools in parents' involvement in their children's game education. The influence of teachers and the role of schools in children's gaming should be further studied. Likewise, teachers' role in parents' involvement should be explored. These perspectives can be studied by different qualitative studies in schools where parent-children events, workshop series or courses are implemented regarding gaming. The collected qualitative data would serve to map out the most effective ways of school-parent cooperation. After such events, quantitative studies should be implemented testing the discovered ways and influencing factors for successful cooperation.

The three different mediation strategies are accepted concepts when considering parents' mediation of video games. However, the tone or valence of those mediation types are less widely discovered. In a recent study (Martins, Matthews and Ratan, 2015) the importance of the tone of mediation was identified and they examined this dimension regarding active mediation. It would be important to consider this aspect regarding the other two mediation types as well. The subcategories of co-playing identified in this study can serve as a starting point when exploring the valance of co-playing as mediation technique. As the different subcategories of co-playing mark different levels of involvement, they might presume different tone as well as suggested from the collected data.

5.2 Policy Implications

Based on the results it is proposed that parents receive more support and guidance regarding their mediation and educating their children about media and specifically about video games. As Hungary's situation is described in chapter 2.3.2 (Hungary's media literacy), it is evident that Hungary needs to improve education regarding media. One of the key influencers could be parents as a starting point of the required change. This need should be considered not only in Hungary but also in international research field, schools and finally, on a policy level.

In the research field as it is described in chapter 5.1 relying on the model created in this study (Picture 1) the different points of intervention and the connection between the formed themes should be further studied and tested with qualitative and quantitative methods. It is important that the issue of video games and parents' role in mediation stay in the current academic discussion. The more established the results are in this field the easier it is to argue for and make a difference in practical ways in schools and on a policy level.

What can be already achieved as an implication of this study? In schools more emphasize should be put on teacher-parent and parent-parent cooperation. As it is documented in the research diary, I was surprised at how enthusiastic parents were to share their experience with me and with other parents at the focus group conversation after the event. A parent even referred to this experience when asked about game education.

> *It is completely true what a few parents said that we can play together with them (the children), and in a different way, and you think about these things a little differently.*
>
> *(Mother 1, post-interview)*

The sharing of experience between parents could be a path to approach in the form of parents' support group or similar group activities specifically about media education. Although parents' support groups or parent to parent support (a pair of matched parents) are mostly used for parents with disabled or hospitalized children (for example: Ainbinder, et al., 1998; Smith, et al., 1994; Han and Belcher, 2016), the same principal might be effectively used when trying to aid parents with ideas how to educate their children about video games. These mentioned groups are highly researched and proved to be helpful for the following reasons: parents share similar situations having same aged children and questions and problems regarding game education. This similarity enhances trust and they easily find an "ally" in the other parents. They have "comparable situations for learning relevant skills and gathering useful information" (Ainbinder, et al. 1998, p. 103).

Another practical way is to follow the executed event described in this thesis which provides a practical example of how to educate parents about video games in a school setting. The presented method directly reinforces co-playing as a mediation strategy. The structure and ideas of this action research can serve as a practical guide for the development of other similar events or workshops. Repeated workshops or continuous after-school courses for parents and children executed by media educators are recommended for more lasting results and in-depth education. Such workshops have the potential of starting a conversation between parents and children about games (active mediation), providing a shared experience of play for parents and their children (co-playing) and equipping parents with the knowledge and resources that help them set healthy rules for their children regarding gaming (Support activities shaping restrictive mediation). The continuity of the courses would also be important because it can help solve problems as they emerge.

Considering Hungary, as the location of the action research, based on the findings, substantial change is needed regarding media- and game education. As described in chapter 2.3, Hungary is lagging behind considering Media and Information Literacy compared to other countries in Europe. This shortcoming might originate in its comprehension of MIL. Hungary seems to concentrate on computer skills, whereas critical thinking and social involvement is less emphasized. MIL is not a part of schools' curriculum as a separate subject, only Information Technology (computer science, digital skills) is its own subject, which is only a part of the concept of MIL. For improvement, a fundamental change is needed in the way Hungary handles media education. Firstly, it would be important that teachers receive comprehensive media education. Now, most trainings are only concentrated on the use of mediatized tools. Secondly, to achieve this effectively, new national MIL policies should be established and an official separated budget for MIL should be introduced. After having the proposed changes introduced, schools would have adequate knowledge and resources to start cooperation with parents which is of key importance based on the findings of this study. Finally, new ways of assessing children's media literacy should be introduced. Today only digital, information and computer skills are evaluated in the form of students' examination, other skills related to MIL are not assessed.

In Hungary the most significant positive initiative for using media in education has been the portal Sulinet (see: sulinet.hu). It is an academic webpage where educational materials are available for the general public. Although it serves as a useful tool for teachers and students, it is rarely used by parents. For better cooperation between schools and parents relying on this existing portal would offer an easy way of improvement. Parents should be encouraged to use this portal and inform themselves about what is thought in schools. One practical way of encouraging parents for the use of the site could be to create special parts designed especially for parent users. Based on the

importance of parental support in mediation, which is confirmed by this study, it is suggested that materials about media education and specifically mediation strategies are added to the website. At present, only separate school subjects are displayed and materials on those subjects are available. The practical changes suggested above, however, can only be executed if the government adds media education to its program.

The most significant positive initiative in Europe that recognized the issue of modern technology and media education has been "EU kids online" (see: eukidsonline.net). It is a multinational research network that aims to raise knowledge about the European children's internet use (including gaming). It provides freely accessible data on online opportunities, risks and safety. It can serve as a useful tool for media educators and parents. The network examines children's online activities as a whole with special attention to social networks and safety. However, video games and parental educational perspectives are less represented and demonstrated. Based on this study, it is verified that video games are a relevant issue and that parents need support in mediating their children's game use. Thus, it is argued that more material should be added to this portal about parental mediation including practical ways and guides that help parents establish balanced mediation strategy which includes all three forms of mediation (active mediation, restrictive mediation and co-playing). In addition, an easy and practical way to support and encourage parents in using an effective mediation strategy is to provide them with the resources of support activities, such as useful games, filter programs or material on the possible effects of games, thus adding these resources to the surface of EU kids online would be highly beneficial.

5.3 Evaluation and Limitations of the Study

The research method was chosen based on the question this thesis aimed to answer. As the research question was: "How to support parents in educating their children about video games through reinforcing co-playing and other mediation strategies", thus the study set out to explore the phenomena of video games and how parents deal with this issue and make suggestions of improving this area, qualitative research seemed the most fitting. Choosing specifically action research as the research method of this thesis corresponds with the aim and motivation of the study which is to contribute to a necessary positive change in educational practices at least on a local level. According to the traditional worldview and purpose of action research it is designed to develop skills of the research subjects and improve the functioning of institutions. Its goal is both to generate knowledge and understanding (Boog, 2003). In the case of this thesis, the goal of contribution to a necessary change was met, as the executed action research in the Hungarian elementary school provides a

positive precedent for parents' game education and a functioning example for cooperation between schools and parents for the sake of the children's positive educational outcome. However, this one time event has limited influence. Similar events and workshops should be implemented for lasting change. As Savin-Baden and Wimpenny describes in their article (2007), in participatory action research, to achieve meaningful social change, self-reflective cycles are necessary. This means engaging with participants in a series of self-reflective cycles that consist of planning, acting and observing and reflecting on the cycles and then repeating the same process. Because of the limited timeframe and resources of this thesis, this cyclicality could not be executed, thus the social change that the action research brought about is less permanent. Therefore, it is suggested that in the school this event was held at, annual similar events would be executed, further educating parents and children about video games. After the action research, parents and teachers at the school are more familiar and more accepting to such events and have an example to follow and further develop. The goal of generating knowledge and understanding was met since new dimensions and perspectives were added to the theory of parents' game mediation strategies.

The data collecting methods were chosen in accordance with the research method (action research). Three main sources of data were collected which together served as the base for analysis and results. These sources were: pre- and post-interviews, research diary, group discussion after the event (see table1). The primary source of data came from the interviews. Originally the Research Diary was planned to be the main source of data, however, during analyzing it became clear that the data from the conducted interviews (pre-and post-interviews) were more relevant and important to answering the research question. This modification of the research plan shows that relying on multiple sources of data was the correct decision. The tradition of relying on more sources is widely used in qualitative research (Creswell, 1994), thus this thesis benefited from this tradition.

The pre- and post-interviews were conducted (see Appendix 1) following the principles of semi-structured interviews that are often used in qualitative research. According to DiCicco-Bloom and Crabtree (2006) semi-structured interviews are the most widely used data collection strategy for qualitative research as they grant the participants the expression of their view on a matter to depth. It was a logical step to use a more qualitative strategy of data collection encouraging participants to share rich information and opinions as opposed to using, for example, questionnaires. This decision is justified by the fact that the collected data revealed new dimensions in the theory of mediation strategies, however, these dimensions would have not been asked about and discovered in a more rigid questionnaire.

The thesis used Thematic Analysis as its data analyzing method, and it followed the steps explained by Clark and Braun (2014). These steps or analyzing phases are the following: (1)

familiarization with data and identifying items of potential interest, (2) generating initial codes, (3) searching for themes, (4) reviewing potential themes, (5) defining and naming themes, (6) producing the report. At the phase of "searching for themes" Clark and Braun encourage to create a thematic map, which was continuously revised through the analyzing process. This thematic map formed into the complemented theory of mediation strategies (see Picture 1) which is an easily understandable summary and illustration of the results of this thesis. Therefore, it is confirmed that the chosen analyzing method has served the purpose of this research well.

Finally, it is concluded that the main objectives and the goal of this study were met and thus the first steps towards a more comprehensive game education regarding parents were taken. As the focus of academic and public discussion of video games has not been parent education so far, the lack of exploration in this area was the incentive of this thesis. The objective of further exploration in this matter was met since new dimensions and influencing factors were recognized concerning parents' game mediation through this study. This study has not satisfied the whole need for further research but has started a possible path for further academic examination in this area.

Because of certain circumstances and the nature and scope of the study, there are limitations that need to be considered when viewing the results. Due to the research method, which focuses on a specific community in a particular time and location and the limited number of participants, the results of the study are not to be generalized. However, some key variables that emerged during the research can provide a basis for further study and testing. Repeating the action research with revised data collection methods and improved and more focused research questions could make the results more accurate and generalizable.

The cross-sectional nature of this study precludes the ability to determine the temporal nature of the results concerning both the abiding nature of the change in attitude and behaviour of individuals and the community, as well as the temporality and relevancy of results if wanting to apply later. Longitudinal studies would be required for further exploration.

When constructing the research plan I decided to fill my research diary only about the workshop. I regret not including the interviews, as some information about circumstances and small dialogues before and after the interviews are not recorded, although they would have been of relevance to my research.

As the workshop and interviews were conducted in Hungarian, whereas the coding process, analysis and the whole thesis was composed in English the threat of losing some segments of meaning during the translation is inevitable. As the scope of this thesis did not allow for professional translation, I myself translated the Hungarian data. The fact of not being a professional translator might lessen the accuracy of my translation. As a result of me being an active part of the research

and the fact that I had developed an initial relationship and understanding towards the parents that were interviewed, personal translation might serve as a benefit to accuracy. However, it is substantial to note the threat of bias as a result of the researcher's participation.

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Interview guides

Pre-interviews

Basic demographics of parents

Sex of parent:

Age:

Occupation:

Children's number, sex and age

How many people live together in their home?

What kind of gaming devices they have at home?

Interview themes and questions (regarding the child that is participating in the event):

1. What game does your child usually play? What do you know about these games? (Internet games, free-to-play, is the child a part of a gaming community, does he know people through gaming)
2. Are you happy that your child is gaming, do you support him/her in this? What is your opinion about video games? (fears, advantages)
3. Do you have a strategy of guiding and educating your child regarding video games? (restrictions, talking about gaming, playing together, do you search out information about games)
4. What difficulties do you face educating your children about video games?
5. What would you like to hear about regarding video games? What would be a good way to support you in educating your children in this area?

Post-interviews

1. Was there a change in the child's gaming habits? What does he/she play with now? Has he/she played with the recommended games?
2. What is your opinion about video games? (fears, advantages)
3. Have you introduced new restrictions or habits regarding video games? Do you play together? Have you talked about games and gaming?
4. Did you find it useful what you have heard on the event?

5. What was the most memorable from the Digital Afternoon? What was the thing that had the most effect of on you?

Feed-back conversation

1. Which games were the most interesting for you and for the children?
2. Have you found out anything new about gaming and your child?
3. Anything new or a question that occurred to you about digital education?